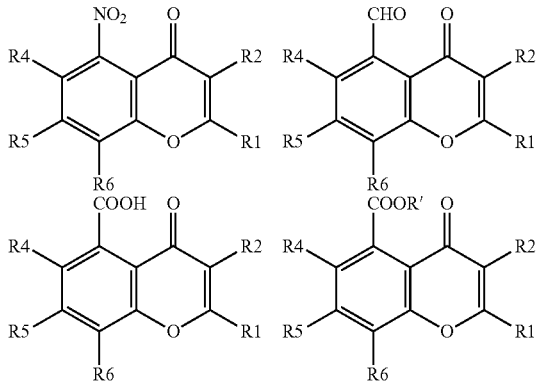
nine nucleotide-exchange protein 2. Another isoform of BRAG2 exists, referenced as UniProtKB—A0A087WWK8 (SEQ ID NO:10). This isoform shares a high sequence identity (same PH domain), but differs mainly by a longer N-terminus. Inhibitors of BRAG2 of the present invention inhibiting BRAG2 (Q6DN90) are considered to inhibit also this isoform (A0A087WWK8) as they bind to PH domain.

[0015] In particular the invention relates to non-competitive inhibition of its protein-membrane interactions having potent and selective inhibition of a membrane-associated regulator of small GTPases. Molecules according to the invention designated as Bragsin, inhibit the activation of Arf GTPases. Such inhibition is performed for example by their guanine nucleotide exchange factor BRAG2 in vitro, and this effect is specific and manifests only in the presence of membranes. Advantageously, in cells, molecules according to the invention affect the trans-Golgi network, and this effect is rescued by ectopic expression of BRAG2 or constitutively active Arf and is phenocopied by BRAG2 gene silencing.

[0016] In one embodiment, said molecule is selected from the group consisting of:



wherein R' is a chemical group of atoms, for example an alkyl optionally substituted or COOR' form an ester salt, for example a sodium ester.

[0017] In one embodiment, R4 is selected from the group consisting of an hydrogen, an hydroxy, an alkyl, preferably a methyl (Me) or ethyl (Et), an O-alkyl (or alkoxy), preferably OMe or OEt, an alkene, an O-alkylene, an alkyne, preferably —CCH, or an O-alkyne, preferably —OCH2-CCH.

[0018] In one embodiment, R6 is selected from the group consisting of an hydrogen, an hydroxy, an alkyl, preferably a methyl (Me) or ethyl (Et), an O-alkyl, preferably OMe or OEt, an alkene, an O-alkylene, an alkyne, preferably —CCH or an O-alkyne, preferably —OCH2-CCH.

[0019] In one embodiment, R5 is selected from the group consisting from the group consisting of an hydrogen, an hydroxy, an alkyl, preferably a methyl (Me) or ethyl (Et), an O-alkyl, preferably OMe or OEt, an alkene, an O-alkylene, an alkyne, preferably —CCH or an O-alkyne, preferably —OCH2-CCH.

[0020] In one embodiment, R2 is H.

[0021] In one embodiment, R4 is H.

[0022] In one embodiment, R5 is H.

[0023] In one embodiment, R6 is H.

[0024] In one embodiment, R6 is selected from the group consisting of an hydroxy, an alkyl, preferably a methyl (Me) or ethyl (Et), an O-alkyl (or alkoxy), preferably OMe or OEt, an alkene, an O-alkylene, an alkyne, preferably —CCH, or an O-alkyne, preferably —OCH2-CCH.

[0025] In one embodiment, R6 is OMe.

[0026] In one embodiment, R2, R5 and R6 are hydrogen atoms.

[0027] In one embodiment, said molecule is selected from the group consisting of: